

**AIR NATIONAL GUARD**

# **ANG Modernization**

**Colonel Dan Bader, ANG/A5**  
**Deputy Director, Plans and Requirements**

**READY ★ RELIABLE ★ RELEVANT**



# AIR NATIONAL GUARD

FY 07 Weapons Systems  
Modernization Requirements



*"Our Flight Path to 2020 - Relevance"*

*The new mod  
book is here!*



**Mission Resolve**

**Future Challenge**





U.S. AIR FORCE

# ANG FY07 Weapons Systems Modernization Book



- **Purpose:** Advocate field driven requirements to Headquarters Air Force, MAJCOMs, DoD and other Federal Agencies, ANG local/state offices, congressional leaders and the defense industry





# Foreword



The Air National Guard has a rich history in defending and protecting America's interests at home and abroad. From humble beginnings – 4 units and 108 members in 1946 – to a force that delivers one third of the Air Force's combat power, the contributions of our citizen airmen are without equal. Since 11 September 2001, the Air National Guard has flown more than 159,000 sorties and over 473,000 hours in support of Operations NOBLE EAGLE, ENDURING FREEDOM, and IRAQI FREEDOM. We continue to accomplish battlespace dominance while combating tyranny in the Global War on Terrorism. The innovative spirit, foresight and tenacity displayed by our citizen airmen have allowed our force to transform into an indispensable partner of today's Total Force.

When fighting terrorist organizations and rogue nations who desire to employ weapons of mass destruction against our homeland and our allies I echo the Air Force Chief of Staff, General T. Michael Moseley - "we will innovate...we will fly...we will fight...and we will win". Our adversaries see, and will continue to see, *mission resolve* as we fly highly demanding missions.

As a seamless part of the Total Force, the Air National Guard dominates the battlespace and will remain *Ready, Reliable and Relevant...needed now...and in the future.*



- We have modernized the oldest inventory of aircraft in our history to operate in today's joint and combined operations and we will adapt to meet the threats and challenges of the 21<sup>st</sup> century.
- We are transforming our warfighting capabilities and our organization to meet tomorrow's future challenges. These challenges include: shortening the acquisition timeline; reducing bureaucratic processes; community basing; Guard/Active Duty Associate units; implementing Base Realignment and Closure; and results of the Quadrennial Defense Review.

Our culture of focused transformation will give us the decisive operational capability needed to always remain several steps ahead of our adversaries. Our goal is to be lethal while compressing the kill chain to minutes instead of hours or days. Accomplishing this requires innovative thinking from all of our personnel involved in system development, acquisition, test, fielding and operational employment.

America's founding fathers gave us a proud heritage - a heritage that speaks to us and is embedded in our minuteman culture. Our airmen's work, ideas and courage symbolize the pride and strength of our great nation. These courageous men and women propel us to an unlimited horizon of opportunity, which is the birthright of our citizen airman.

  
DANIEL JAMES III

Lieutenant General, USAF  
Director, Air National Guard



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# ANG FY07 Weapons Systems Modernization Book



## ■ Process

- Derived from ANG/AFRC Test Center (AATC) hosted Weapons and Tactics Conference (WEPTAC) Oct 05, in Tucson AZ
  - Field driven, bottom-up critical requirements
- Vetted through Weapons System Councils
- Prepared by ANG/A5, approved by NGB/CF



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# ANG FY07 Weapons Systems Modernization Book



## ■ Substance

- Requirements are in three categories: Combat Critical, Essential, Desired
  - Unfunded / funding acceleration
- Executive Summary / Information Papers prioritized by Mission Area on critical requirements
- Some items from WEPTAC aren't on the Exec Summary (not ready for prime time)
- Some items not from WEPTAC are on the list (carry over from previous years)



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# ANG FY07 Weapons Systems Modernization Book



- Summarized spread sheet prioritized and broken out by categories: Combat Quadrangle (Precision Strike, Data Link/Combat ID, 24-Hour Operations, Enhanced Survivability), Propulsion, Simulation, Training, Acquisition requirements

# Combat Quad Spreadsheet

ANGFY 07 WEAPONS SYSTEMS MODERNIZATION REQUIREMENTS					
PRECISION STRIKE	Type Funds	Units Required	Unit Cost	Program Cost	
<b>F-16 Helmet Mounted Cueing System (HMCS)</b>	3600				\$4,200,000
*Provides a quantum leap in air and ground weapons employment and full sensor-to-pilot fusion	3010	373	\$400,000		\$149,200,000
<b>F-15 Joint Helmet Mounted Cueing System (JHMCS)</b>	3010	120	\$570,000		\$68,400,000
*Provides a quantum leap in air-to-air weapons employment and full sensor-to-pilot fusion					
<b>F-16 &amp; A-10 Targeting Pod Video Downlink</b>	F-16 3010	84	\$100,000		\$8,400,000
*Real time imagery transmission to JTAC/TACP	A-10 3010	18	\$100,000		\$1,800,000
<b>C-130H2 APN241 Radar</b>	3010	20	\$800,000		\$16,000,000
*Provides all weather precision airdrop and windshear detection capability.					
<b>Parasocue SOV3HH Parachute and MI Tandem Tether Parachute</b>	3080	180	\$16,000		\$2,880,000
*Increases parasocue forces safety, high altitude capability, and additional weight	3080	16	\$21,000		\$336,000
<b>F-16 Commercial Fire Control Computer</b>	3600				\$3,000,000
*Improved processing and bandwidth capability for future growth	3010	373	\$60,000		\$22,380,000
<b>F-15 Very High Speed Integrated Circuitry Central Computer (VCC+)</b>	3010	126	\$158,000		\$19,910,000
*Increased processing and memory growth to support future F-15 requirements					
<b>A-10 Helmet Mounted Cueing System (HMCS)</b>	3600				\$4,200,000
*Provides a quantum leap in air and ground weapons employment and full sensor-to-pilot fusion	3010	112	\$400,000		\$44,800,000
<b>F-16 Digital Radar Warning Receiver</b>	3010	373	\$625,000		\$233,125,000
*Enhanced threat detection and azimuth accuracy					
<b>F-16 &amp; A-10 Targeting Pods</b>	F-16 3010	26	\$1,400,000		\$36,400,000
*Provides precision guided munition employment capability	A-10 3010	20	\$1,400,000		\$28,000,000
<b>F-16 Threat Geo-Location</b>	3010	373	\$20,000		\$7,460,000
*Provides the ability to locate threats with near precision accuracy using cooperative interflight datalink information					
<b>F-15 Active Electronically Scanned Array (AESA) Radar</b>	3010	126	\$8,720,000		\$1,098,720,000
*Next generation precision capability to detect, track, and eliminate asymmetric threats					
<b>F-16 Advanced APG68(V)10 with Synthetic Aperture Radar</b>	3600				\$40,535,000
*Increases pilot survivability and lethality in every mission area	3010	388	\$1,819,230		\$705,861,240
<b>F-16 Smart Triple Ejector Rack</b>	3010	211	\$46,000		\$9,706,000
*Allows for employment of multiple Joint Direct Attack Munitions (JDAM) and Wind Corrected Munitions Dispenser (WCMD)					
				<b>TOTAL</b>	<b>\$2,505,313,240</b>





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# WEPTAC '05 Exec Summary



- We must continue to modernize to meet the evolving threat
- Need BLOS (Beyond Line of Sight) data and communications connectivity
- Require modernization of self-protection capability for many of our platforms
- New simulation/distributed mission capabilities can fill gaps in training opportunities created by ops tempo and resource limitations

# A-10

- Satellite communications (SATCOM)
- Multi-Function Color Display (MFCD)
- Lightweight Airborne Radio System (LARS) Upgrade
- IR Missile Warning System
- Helmet Mounted Cueing System (HMCS)
- Engine Upgrade
- Targeting Pod with Video Down Link (VDL)



## A/OA-10 Close Air Support Forward Air Controller (Airborne) Combat Search and Rescue (CSAR)



The ANG operates 102 A/OA-10 aircraft among six wings representing one third of the total U.S. combat A/OA-10 forces.

The venerable A/OA-10 remains the only U.S. fighter still operating in Operation ENDURING FREEDOM – Afghanistan, supporting U.S. Army and Special Operations Forces. The A-10 is the most effective close air support aircraft ever built: "We could hear the A-10s come in. It was like Christmas, the happiest moment of my life"....U.S. Army private, convoy troop caught in a Taliban ambush.



A-10s successfully completed testing Precision Engagement (PE) Suite 3.1. PE Suite 3.2 is underway and will include a wide array of munitions employment testing.



A-10s are now approved for Situation Awareness Data Link (SADL).

Equipped with the "smart" multifunction color display (MFCD) the first non-test A-10 successfully flew multiple sorties with a variety of weapons releases and SADL data link networking.

A-10s successfully demonstrated SATCOM radio capability.



# C2



## COMMAND AND CONTROL



- Tactical data link (TDL)
- Advanced technology ASOC
- TACP tactical employment kit/vehicle armor
- CONUS and Alaska NORAD Region (ANR) Air Defense Sectors (ADS) radio capability
- CRC body armor / shelters
- ANR sensor coverage for air defense operations at Valdez, AK
- Eastern Air Defense Sector (EADS) sensor coverage for the Louisiana Offshore Oil Pipeline (LOOP)
- CRCs capability to decontaminate personnel
- RCS needs an ASR-12 gap filler radar for 266 RCS

ANG C2 warriors and weapons systems are enhancing the joint fight in the Global War on Terrorism and Homeland Defense as this expanding mission area undergoes dynamic transformation.

### AIR DEFENSE SECTORS (ADS)

Air Defense Sectors are responsible for humanitarian and disaster relief efforts, Military Assistance to Civilian Authorities (MACA), and air defense of North America under the auspices of NORAD and NORTHCOM.

### TACTICAL AIR CONTROL PARTY (TACP)

To control air support for ground forces and prevent fratricide, ANG TACP personnel are deployed and work closely with the US Army and Army National Guard.

### COMMAND AND REPORTING CENTERS (CRC)

CRCs provide the JFACC radar surveillance, battle management, and safety of flight for air and space missions in a theater of operations.

### RANGE CONTROL SQUADRONS (RCS)

ANG range control squadrons operate and maintain several range complexes providing safety of flight for the active duty Air Force.



# C-5



- AN/AAV-24 Large Aircraft Infrared Countermeasures (LAIRCM)
- Infrared (IR) Defensive System Tester
- Defensive Armor
- Defensive System (ADS)

# C-5 GALAXY



The C-5 Galaxy offers a unique capability to carry outsized and oversized equipment over intercontinental ranges. The C-5 is capable of facilitating simultaneous cargo loading from full sized front and rear cargo doors while kneeling its body to a height of three feet off the ground for drive-on loading convenience.

C-5s have participated in humanitarian missions in the wake of both Hurricanes Katrina and Rita. Combined, these efforts totaled 20 missions, 89 sorties, 215 flying hours, carried 820 passengers, and moved 3,550,612 pounds of cargo.

C-5s excelled in Operation ENDURING FREEDOM flying 29 missions and 556 sorties in 2749 flying hours. During these missions, the C-5 hauled 536,693 pounds of cargo and 317 passengers. The 105th Air Wing at Stewart, New York also supported Operation IRAQI FREEDOM flying 87 missions and 194 sorties in 1040 flying hours while hauling 7,611,918 pounds of cargo and 2,207 passengers.

C-5s flew in support of the Indonesian Tsunami totaling 3 missions, 37 sorties and 215 flying hours and most recently, assisted in the Pakistan Earthquake Relief effort.





# C-17

- AN/AAV-24 Large Aircraft Infrared Countermeasures (LAIRCM)
- Infrared (IR) Defensive System Tester
- Defensive Armor



## C-17 GLOBEMASTER III



ANG currently operates C-17s at the 172<sup>d</sup> Airlift Wing in Jackson, Mississippi. A second unit the 154<sup>th</sup> Airlift Wing at Hickam AFB, Hawaii will be the first ANG C-17 PACAF associate unit.

C-17s from the 172<sup>d</sup> Airlift Wing flew disaster relief and rescue missions after Hurricanes Katrina, Rita, and Wilma.

C-17s currently perform all strategic air evacuation actions from Operations ENDURING FREEDOM and IRAQI FREEDOM to Germany and points west.

The 172<sup>d</sup> Airlift Wing Mississippi flew Tsunami relief missions throughout the Pacific theater for three weeks, carrying supplies and personnel to/from New Zealand, Hawaii, Japan and even to/from Alaska and Thailand.

The 172<sup>d</sup> Airlift Wing transported 100,000 pounds of equipment and Navy divers to support the successful rescue efforts to save seven Russian sailors stranded aboard a submarine off Russia's Pacific coast.





# C-130

- Large Aircraft Infrared Countermeasures (LAIRCM)
- C-130 IR Countermeasures (IRCM) Tester
- Virtual Electronic Combat Training System (VECTS)
- C/EC/HC/MC-130 Data Link
- AN/APN-241 Low Power Color Radar (LPCR)
- HC/MC-130 Dual Rail Cargo Handling System
- HC/MC-130P Universal Air Refueling Receptacle Slipway Installation (UARRSI)
- EC-130J COMMANDO SOLO
- C-130E/H/J Surface-to-Air Fire (SAFIRE) Look-Out Capability
- HC/MC-130 LARS AN/ARS-6 V12 and CSAR Common Operating Picture



## C-130

Including the MC-130, HC-130,  
& EC -130 Commando Solo



### C-130:

Air National Guard (ANG) C-130s provided more than 65 percent of the Air Force's tactical airlift capability and 35 percent of strategic airlift during Operations ENDURING FREEDOM (OEF) and IRAQI FREEDOM. ANG C-130s played an essential part in operations supporting Hurricane Relief Efforts for both Katrina and Rita.

The C-130 modernization program purchased more Large Aircraft Infrared Countermeasures (LAIRCM) systems, continued acquisition of the AN/APN-241 Low Power Color Radar to standardize the ANG fleet, supported development of the Commando Solo modular conversion program, and purchased two Visual Threat Recognition and Avoidance Trainers for ANG crew/aircraft survivability during combat.

### HC/MC-130:

The Alaska ANG continued to provide 24 hour civil Search and Rescue coverage for the state of Alaska and surrounding area while at the same time deploying their combat capabilities alongside California and New York Guardsmen in support of OEF- Horn of Africa.

New York ANG HC-130 crews rapidly deployed in the aftermath of Hurricane Katrina to provide much needed rescue capability and support by moving critical supplies, personnel, and air refueling rescue helicopters.

### EC-130:

The 193 SOG, Harrisburg, PA continued conversion to the EC-130J during FY05 and trained aircrew and maintenance personnel while working ongoing development, test, and evaluation issues.



# DMO

- F-16 Full Combat Mission Trainer
- A-10 FMT
- E-8C Mission Crew Trainer
- HC/MC/C-130 / C-5 Visual Threat Recognition and Avoidance Trainer (VTRAT)
- SENIOR SCOUT Mission Trainer
- Distributed Training Operations Center (DTOC)
- Mission Training Engineering Center (MTEC)
- MQ-1 PMATS - Predator Mission Aircrew Training System
- CRC Simulator Package
- Joint Threat Emitter (JTE)
- I-FACT - Indirect Fire-Forward Air Control Trainer
- Rangeless ACMI (P-5 CTS)
- AOC DMO / Part Task Trainer (PTT)
- Combat Arms Training System (CATS)



# DMO

## Distributed Mission Operations



*The Air National Guard's DMO program supports all weapon systems and command and control mission areas to provide high fidelity, immersive simulators for individual, team, inter-team, and full mission rehearsal training.*

Preparing pilots for combat remains the primary mission of the ANG's Distributed Training Operations Center (DTOC), using tools such as this realistic database of Bagdad.

The DTOC moved into purpose built facilities in 2005 which will allow it to run simultaneous training events at different levels of security.

The federation of DTOC networked simulators continues to grow, and now includes all A-10 FMTs, JTACs at Ft. Hood, and initial connections to F-16s.

The DTOC has become vital to the effort to train for Homeland Defense missions in DMO. This is a prime example of the type of mission that can simply not be trained for in actual flying training.





# JSTARS



## E-8 JSTARS “EYES OF THE NIGHT”



- Engine replacement
- Self-protection capability
- Traffic Alert Collision Avoidance System (TCAS)
- Organic Combat ID
- Wideband BLOS Network Centric Connectivity
- Ground Moving Target Indicators (GMTI) Exploitation
- Immediate Processor Replacement

From the first days of Operation IRAQI FREEDOM, the 116<sup>th</sup> Air Control Wing has been deployed in the combat theater without relief. The Joint Surveillance Target Attack Radar System (JSTARS) is *the premier command and control system of choice* in today's combat theaters. The combination of robust communication capability and real-time ground surveillance vastly improves situation awareness across the air and ground battle spaces, leading to full air and ground supremacy.

As the only JSTARS unit, the 116 ACW at Robins AFB, GA houses all 17 E-8Cs and 1 E-8A and is the first blended wing in DoD. With an unblemished combat record and evolving revolutionary capability, the 116 ACW is manned by 1,625 active duty Air Force personnel, 90 active duty Army personnel, 599 full-time ANG personnel and 542 traditional ANG personnel.

Leading technical development of ground moving target indicator (GMTI) capability, JSTARS is advancing Total Joint Force C2ISR combat capability during employment of network centric warfare.



# F-15

- AESA Radar - Active Electronically Scanned Array (AESA)
- Advanced RWR (Radar Warning Receiver)
- JHMCS (Joint Helmet Mounted Cueing System)
- EGI (Embedded GPS/INS)
- -220E Engine kits
- VCC+ (Very High Speed Integrated Circuitry Central Computer (VHSICC) Plus)
- DVRS (Digital Video Recording System)
- PNVG (Panoramic Night Vision Goggle)
- BOL Next generation self-protection survivability



## F-15

**WORLD'S DOMINANT AIR SUPERIORITY FIGHTER**  
**104 KILLS TO ZERO LOSSES IN AIR COMBAT**



The ANG operates seven squadrons of F-15A-Ds representing 29% of the USAF combat F-15 fleet. Six of the squadrons operate 90 combat coded F-15s at the following bases: 102 FW Otis ANGB MA, 125 FW Jacksonville IAP FL, 131 FW St. Louis IAP MO, 142 FW Portland IAP OR, 154 WG Hickam AFB HI, and 159 FW New Orleans NAS LA. The seventh squadron is an AETC F-15 Flying Training Unit (FTU) at the 173<sup>rd</sup> FW Klamath Falls IAP OR.

In FY05 the 131 FW completed F-15C/D conversion. Future iron flow distribution and draw down continues to be fluid based on the F/A-22 delivery schedule and final F/A-22 procurement. ANG F-15 A/Bs will flow to either Aerospace Maintenance and Regeneration Center (AMARC) or existing ANG F-15 units as additional attrition reserve aircraft.

Since September 11, 2001, 100% of the Air National Guard F-15s have been supporting Operation NOBLE EAGLE. They have flown 4,470 sorties totaling 14,074 flying hours.

ANG F-15s support 24-hour Air Sovereignty Alert (ASA) and represent 40% of all ASA assets. Since Sept 11, 2001, ANG F-15s have executed 359 alert scrambles totaling 463 flying hours.





# F-16

- Commercial Fire Control Computer (CFCC)
- Helmet Mounted Cueing System (HMCS)
- Digital Radar Warning Receiver (RWR)
- Threat Geo-Location
- Advanced Targeting Pod (ATP)
- TGP Video Downlink (VDL)
- APG-68(V)10 SAR Radar
- Smart Triple Ejector Rack (TER)
- Advanced Identification Friend/Foe (AIFF)
- -229 engines for the Block 42 F-16 s



## F-16C PREMIER STRIKE FIGHTER



ANG operates 520 F-16 aircraft comprising over 40% of the total U.S. combat F-16 force. The ANG F-16 fleet consists of 47 Block 15, 380 Block 25/30/32, 75 Block 42, and 18 Block 52 aircraft.

Since the end of official Operation IRAQI FREEDOM combat operations in 2003 ANG F-16Cs have fulfilled over 30% of CENTAF precision guided munitions (PGM) and close air support (CAS) tasking.

During counter insurgency operations in Iraq, ANG F-16s provide convoy escort, dedicated infrastructure support, border patrol, Army raid support, and "show of force" operations. ANG F-16s serve as the primary non-traditional intelligence, surveillance, and reconnaissance (NT-ISR) platform. In armed reconnaissance missions, F-16s employ the Theater Airborne Reconnaissance System (TARS) and advanced targeting pods.

ANG F-16s led LITENING AT Video Downlink (VDL) development, testing, and production to meet a CENTAF urgent need request in minimal time.

The 174 FW at Syracuse, NY was the first unit to declare initial operational capability with the new Sniper XR advanced targeting pod.

ANG dedicates ten F-16 squadrons to support Operation NOBLE EAGLE, 24-hour Air Sovereignty Alert for Homeland Defense. Since September 11,2001, F-16s from the 113 WG at Andrews AFB, MD have scrambled numerous times and flown hundreds of hours defending the National Capitol Region airspace.





# HH-60



## HH-60 COMBAT SEARCH & RESCUE



- Smart Color Multi-Function Display
- Tactical Data Link – The Enhanced Position Location Radio System (EPLRS) with Situational Awareness Data Link (SADL)
- Multi Function Operators Seat
- AN/ARS-6 V12 Lightweight Airborne Radio System (LARS)
- Intelligence Broadcast Receiver
- .50 Cal Defensive Armament Upgrade
- PNVGs (Panoramic Night Vision Goggle)

The Air National Guard operates three rescue wings; the 106<sup>th</sup> Rescue Wing (RQW), New York, 129<sup>th</sup> RQW, California and the 176<sup>th</sup> WG, Alaska.

Air National Guard HH-60Gs from Alaska, California and New York provided 100% Combat Search and Rescue coverage while on alert and deployed to Operation ENDURING FREEDOM – Afghanistan during 2005. In the September 2005 deployment the 129<sup>th</sup> RQW from California was credited with 20 combat saves.

Air National Guard HH-60Gs from New York and HH-60G pilots from Alaska and California provided immediate and urgent relief efforts in the aftermath of Hurricane Katrina and Hurricane Rita resulting in over 161 lives saved.



# IO

- Multi-Disciplinary Vulnerability Assessment Aggressor Operations System
- The Digital Network Target Range
- Black Demon Range



# IO INFORMATION OPERATIONS



*"Information operations are the integrated employment of the core capabilities of influence operations, electronic warfare operations, network warfare operations, in concert with specified integrated control enablers, to influence, disrupt, corrupt or usurp adversarial human and automated decision making while protecting our own" AFDD 2-5*

## MULTI-DISCIPLINARY VULNERABILITY ASSESSMENT (MDVA) AGGRESSOR OPERATIONS SYSTEM

The MDVA Aggressor Operations System is the latest integrated assessment and penetration technology to determine where Air Force installations world-wide are vulnerable to adversary information attack.

This system will make the ANG Aggressor Ops Squadrons the state-of-the-art aggressors in the Department of Defense.

## DIGITAL NETWORK TARGET RANGE

The Network Warfare Operations (NWO) target range supports Air Force information operations (IO). Information Aggressor Squadrons execute full-spectrum IO aggressor operations against friendly aerospace forces through accurate replication of enemy IO capabilities and tactics, in order to present realistic combat training to the warfighter. This same digital simulation range is used by other IO units for mission preparation and training for actual warfare operations. Assessing Air Force network vulnerability and simulating network attacks is critical to continuing Air Operations Center, combatant command, and base activities during time sensitive operations.

## BLACK DEMON RANGE

The Air Force Information Warfare Center conducts Combat Training Exercise (CTX) Black Demon. The purpose of the CTX is to define and evaluate Air Force tactics, techniques, and procedures (TTP) for defending Air Force networks, and how to counter a large scale attack on computer networks. The exercise focuses on tactical responses to threats and coordination among Air Force Computer Network Defense forces to mount an enterprise-wide defense.



# ISR

- SCATHE VIEW upgrade to the wideband beyond line of sight (BLOS) data link
- SCATHE VIEW tactical data links gateway
- Tactical Airborne Reconnaissance System (TARS) Mission Verification Equipment (MVE)
- Distributed Common Ground System (DCGS)
- DCGS SIGINT
- Alternate DCGS Processing Exploitation Dissemination (PED) Operations Center (DPOC)
- The MQ-1 and -9 Predator
- RC-26 Turret Replacement /Data Link/SATCOM/ Camera Replacement



## ISR INTELLIGENCE, SURVEILLANCE, & RECONNAISSANCE



### ANG AN/GSQ-272 SENTINEL (AIR FORCE DISTRIBUTED COMMON GROUND SYSTEM)

Provides "reachback" for exploitation of data from airborne collection assets including PREDATOR, GLOBAL HAWK, U-2, JSTARS, SCATHE VIEW, and TARS. (AL, AR, CA, GA, KS, OH, NV, VA, & UT ANG).

### MQ-1 PREDATOR

Identified by SECAF and CSAF as Future Total Force initiative in November 2004. ANG operated assets will be available for allocation for homeland defense missions and Combatant Commanders. Units will be established in TX, AZ, NY, ND, & CA with initial operational capability forecasted for June 2006.

### SENIOR SCOUT

Low-cost, small-footprint, self-contained signals intelligence capsule rapidly deployable on any C-130. Cited for outstanding support to USMC elements during Operation ENDURING FREEDOM (OEF) and received General O'Malley award for recon excellence (169 IS UT ANG & 152 AW NV ANG).

### SCATHE VIEW

Modified C-130 with removable electro-optical ball sensor and palletized imagery analysis and dissemination station; needs incorporation of wideband broadcast digital data links (152 IS NV ANG).

### RC-26B

The RC-26B provides support to both COCOMs and civil law enforcement agencies. It handles counter drug operations, civil and national disaster response, and National Special Security events. It needs sensor and navigation upgrades, plus wideband digital data links (AL, AZ, CA, FL, MS, NM, NY, TX, WA, WI, & WV ANG).

### TARS (THEATER AIRBORNE RECONNAISSANCE SYSTEM)

USAF's only high-speed, day-night penetrating "armed reconnaissance" and target imagery asset. Needs Mission Verification Equipment (MVE) at each F-16 Block 30 unit (IN, MN, & TX ANG).





# KC-135

- Tactical Data Link (TDL)
- Situational Awareness Cockpit Display Units (CDUs)
- AN/AAV-24 Large Aircraft Infrared Countermeasures (LAIRCM)
- Night Vision Imaging System (NVIS)



## KC-135E/R AIR REFUELING TANKER



ANG KC-135s provide 80 percent of Operation NOBLE EAGLE alert air refueling support to homeland defense interceptors. The KC-135 operations tempo has increased dramatically because of the Global War On Terrorism (GWOT), homeland defense, and the loss of forward operating bases. To meet the continuous demands of global power projection many upgrades are required to keep KC-135s viable and effective.

The ANG KC-135 fleet is indeed in a state of flux as the KC-135E models are scheduled to retire and the Air Force works to select a follow-on tanker. The current plan is to retire all of the KC-135E models and cascade active duty KC-135R models to the ANG.

KC-135 tankers are frequently operating in and around the battlespace. Defensive systems such as LAIRCM are needed to prevent MANPAD systems from destroying aircraft on takeoff, landing and low altitude flight regimes. Other needed modernizations include situational awareness displays incorporating tactical datalink technologies and a moving map showing real-time threat information to KC-135 crewmembers.



# CRO/PJ/ST

- SOV-3HH Parachute and Mil Tandem Tether Parachute
- High Altitude Recovery Advanced Medical Treatment Suite
- Personnel Recovery Tactical Equipment Modernization
- Parachutist High Altitude Oxygen System



## COMBAT RESCUE OFFICER/ PARARESCUE/SPECIAL TACTICS (CRO-PJ-ST)

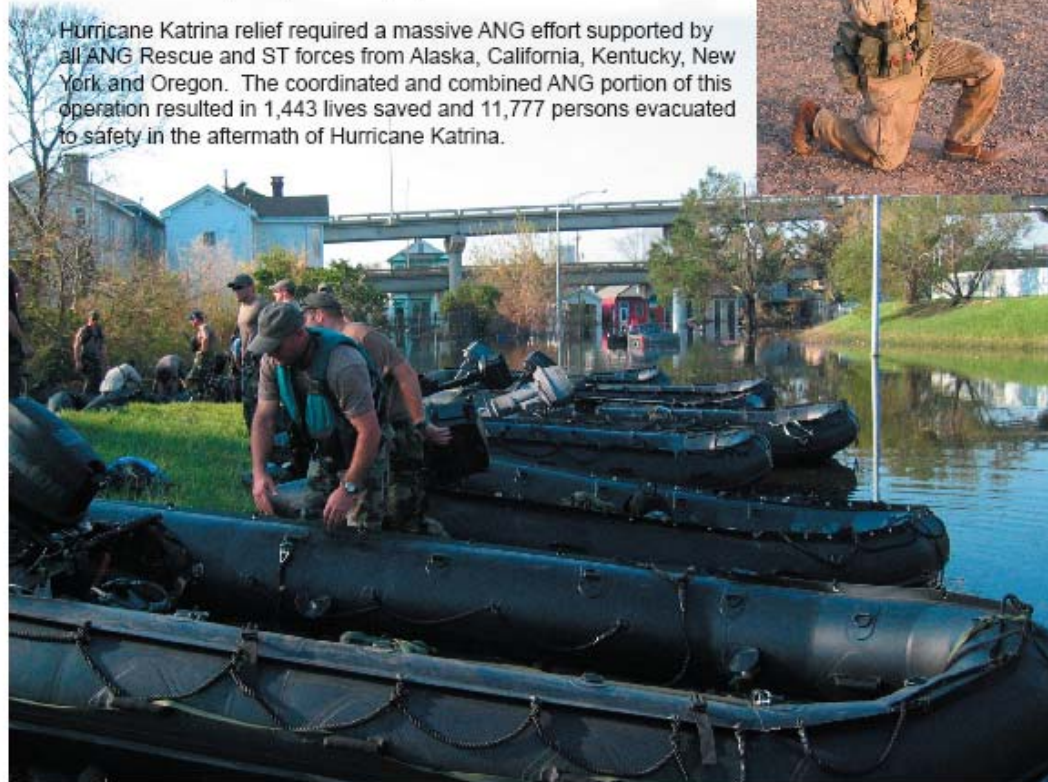


Current Air National Guard (ANG) inventory includes three Pararescue Squadrons in Alaska, California and New York and two Special Tactics Squadrons in Kentucky and Oregon.

The Pararescue/Special Tactics mission area in the Air National Guard grew in 2005 with the addition of the 125th Special Tactics Squadron in Portland, Oregon.

In support of Operation IRAQI FREEDOM, Operation ENDURING FREEDOM-Afghanistan and Operation ENDURING FREEDOM-Horn of Africa, ANG CRO-PJ-ST personnel from Alaska, California, Kentucky and New York provided critical combat capability while deployed in 2005.

Hurricane Katrina relief required a massive ANG effort supported by all ANG Rescue and ST forces from Alaska, California, Kentucky, New York and Oregon. The coordinated and combined ANG portion of this operation resulted in 1,443 lives saved and 11,777 persons evacuated to safety in the aftermath of Hurricane Katrina.





# Special Missions



## SPECIAL MISSIONS



- RC-26 Avionics Upgrade
- LC-130 Crevasse Detection Radar
- C-40C Self-Protection System
- LC-130 Propeller Improvement Program
- RC-26 Defensive Systems
- C-40C Procurement
- C-37 Procurement
- EMEDS Trainer
- EMEDS- Pre-positioned Equipment
- Weapons of Mass Destruction Emergency Response (WMD ER ) Equipment
- C-21A Procurement

The ANG supports several special missions including Distinguished Visitor (DV) transportation, polar operations, and counter-drug. Each of these missions has individual requirements beyond the traditional support provided to the rest of the ANG's fleet.

The ANG's Operational Support Aircraft (OSA) includes the C-40C, C-38, and C-21. The ANG's latest OSA aircraft is the C-40C. The C-40s provide VIP transportation for Congressional, DoD, Air Force and National Guard travel missions worldwide. These new aircraft are redefining the ANG's role in DV transportation.

Ensuring passenger's safety and comfort on all OSA aircraft is the primary mission. The ANG's modernization efforts will continue to focus on keeping these aircraft updated and efficient.



The RC-26B aircraft supports an extensive range of counter-drug efforts. Many different customers take advantage of the capabilities this aircraft can bring to the battle. This aircraft led the way in developing small aircraft reconnaissance capability that many other government agencies have benefited from and incorporated into their own systems. Hardware obsolescence and improving technologies are impacting mission readiness and effectiveness in these aircraft. In order to keep them mission relevant and reliable a major upgrade program to update all the aircraft systems is required.

The LC-130 aircraft supports missions at both ends of the earth. This highly visible aircraft performs a unique mission - landing a large cargo aircraft directly on untouched snowfields in remote areas of the Arctic and Antarctic. Keeping this aircraft safe and operational is extremely challenging due to austere operating and environmental conditions.





# AIR NATIONAL GUARD



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